

AMENDMENTS TO THE CLAIMS

1. (cancelled)
- 2- (currently amended) A composite product comprised of a layer of polystyrene structural plastic having a 0.1 to about 2.5 mm thin protective layer comprising: ~~a blend of an acrylic ester polymer and acrylic polymeric additive.~~
 - a) 10 - 95% polymethyl methacrylate or an C₁-C₆ alkyl methacrylate/C₁-C₈ alkyl acrylate copolymer matrix
 - b) 0 - 60% modifiers; and
 - c) 5 - 40 % acrylic polymer additive that increases the adhesive strength between the layers which is comprised of
5 - 90 % methyl methacrylate,
10 - 95% C₂-C₆ alkyl methacrylate and
0 - 15% methacrylic acid, acrylic acid or C₁-C₅ esters thereof.
- 3- (previously presented) A process for producing a composite of a polystyrene structural plastic and a 0.1 to about 2.5 mm thin protective layer, the process comprises joining a molten stream of polystyrene structural plastic and a molten stream of a blend of an acrylic ester polymer and an acrylic polymeric additive in an extruder discharge conduit to form a single stratified stream of molten material conforming to the cross-section of the conduit and having a relatively sharply defined interface between the structural plastic and the blend, and thereafter passing the stratified stream through a sheet-form extrusion die having its die lips generally aligned with the foregoing interface.
- 4- (cancelled)

5- (currently amended) The ~~capstock composition~~ composite product of ~~Claim 4~~ Claim 2 wherein the acrylic polymer additive is comprised of 20-80% methyl methacrylate and 20-80% butyl methacrylate and has a molecular weight from 40,000-300,000.

6- (currently amended) The ~~capstock composition~~ composite product of Claim 5 wherein the acrylic polymer additive is comprised of 50- 80% methyl methacrylate and 20-50% butyl methacrylate and has a molecular weight from 40,000-100,000.

7- (previously presented) A co-extruded product comprised of two layers
(a) a first layer comprised of polystyrene structural plastic and
(b) a second layer comprised of
(i) methyl methacrylate resin, and
(ii) an acrylic polymer additive that increases the adhesive strength between the layers.

8- (previously presented) The product of Claim 7 wherein the polystyrene structural plastic is a copolymer of acrylonitrile/butadiene/styrene.

9- (previously presented) The product of Claim 7 wherein the polystyrene is high impact polystyrene or crystalline polystyrene.

10- (original) The product of claim 7 wherein the acrylic polymer additive is a polymer comprised of:

- (a) 5-90 wt% methyl methacrylate,
- (b) 10-95 wt% C₂-C₆ alkyl methacrylate, and
- (c) 0-15 wt% methacrylic acid, acrylic acid or C₁-C₃ esters thereof.

11- (original) The product of claim 10 wherein the acrylic polymer additive is a polymer having monomer units of methyl methacrylate, butyl methacrylate and optionally methacrylic acid.

- 12- (original) The product of claim 11 wherein ratio of the monomer units is
- (a) 20 to 80 wt% methyl methacrylate,
 - (b) 20 to 80 wt% butyl methacrylate and
 - (c) 0 to 10 wt% methacrylic acid.
- 13- (original) The product of claim 12 wherein ratio of the monomer units is (a) 50 to 80 wt% methyl methacrylate,
- (b) 20 to 50 wt% butyl methacrylate and
 - (c) 0 to 10 wt% methacrylic acid.
- 14- (original) The product of Claim 7 wherein the second layer is comprised of
- (i) 60 to 95 wt % of methylmethacrylate resin and
 - (ii) 5 to 40 wt % of the acrylic polymer additive.
- 15- (original) The product of Claim 7 wherein the first layer contains pigments, dyes, fillers, PS, acrylic and HIPS rework. different grades of HIPS.
- 16- (original) A co-extruded product comprised of two layers
- (A) 50 to 95 wt % being a first layer comprised of high impact polystyrene, and
 - (B) 5 to 50 wt % being a second layer being comprised of
 - (i) 60 to 95 wt % of an acrylate resin, and
 - (ii) 5 to 40 wt % of an acrylic polymer additive which is copolymer or terpolymer that increases the adhesive strength between the layers.
- 17- (original) The product of Claim 16 wherein the acrylic polymer additive is a 50- 80% methyl methacrylate and 20-50% butyl methacrylate polymer having a molecular weight from 40,000-300,000.

18- (original) The product of Claim 16 wherein the acrylic polymer additive is a 20-50 % methyl methacrylate and 50-80% butyl methacrylate having a molecular weight from 40,000-300,000, preferably 40,000-100,000.

19- (previously presented) A composite for use in sanitary applications, appliance housings, appliance liners, appliance doors, building doors, window trim, shutters, automotive parts or farm equipment wherein said composite comprises a polystyrene structural plastic and acrylic composition capstock, the composite formed by feedblock coextrusion, wherein the acrylic composition is comprised of a blend of an acrylic ester polymer and acrylic polymeric additive.